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ABSTRACT

The Clinch-Powell Educational Cooperative Early Education project was designed to provide preschool experience for 3-, 4-, and 5-year-old children in rural Appalachia who would otherwise not have been able to attend a preschool program. In addition, the program was designed: (1) to provide children with the opportunity to socialize with other children in a group; (2) to promote development of social skills, positive self-concept, creativity, initiative to learn, etc.; (3) to encourage development of cognitive abilities such as number concepts, language and discrimination skills, etc.; and (4) to involve parents directly in education of their children. Generally, the target families lived on farms or in small communities, were of low to moderate income levels, and the parents were undereducated. The program involves a three-dimensional approach which consists of weekly home visits by trained paraprofessionals, weekly classroom sessions in mobile classrooms, and utilization of the Captain Kangaroo TV program and related Parent Guide activities. Children, parents and the program were evaluated on a number of measures which indicated that the program has had a measurable effect on parents and children who participated. Numerous tables clearly illustrate population and evaluation data. (Author/ED)

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SUMMARY OF THE 1974 EVALUATION OF THE CLINCH-POWELL EDUCATIONAL COOPERATIVE EARLY CHILDHOOD EDUCATION PROGRAM

AN EARLY CHILDHOOD EDUCATION PROGRAM IN RURAL APPALACHIA

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INTRODUCTION

I. PROGRAM OVERVIEW

The Clinch-Powell Educational Cooperative was founded in 1971 to serve the mutual needs of four rural Appalachian county school systems in northeast Tennessee. The four counties which constitute the cooperative are Campbell, Claiborne, Hancock and Union Counties. Among the first priorities of the cooperative was the establishment of an early childhood education program which would provide preschool experiences for children who had previously been unable to attend a kindergarten or other preschool program. The development of such a program and the implementation of the program were made possible by competitive funds provided by Title III, Section 306, ESEA.

The early childhood education (ECE) project which was developed was designed specifically to meet the needs of the Appalachian region and to account for such factors as geography, population distribution, the scarcity of trained educational professionals, and the lack of classroom facilities. The program was an adaptation of a model first developed by the Appalachian Educational Laboratory (AEL) in Charleston, West Virginia. The AEL model program consisted of three major instructional components, a mobile classroom, television, and home teachers. These components, as a package, provided a means by which children in isolated rural areas could "attend school" even though there were no classrooms or teachers available. In essence, the program was designed to take school to the children in a situation where the children could not be taken to school. The mobile classrooms could be driven up into the mountains, parked in a small settlement, serve the children of that immediate area, and then be driven to

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another such mountain settlement. The television program could be received in nearly all homes in the four county area and could serve as an instructional method in the home. The home teachers or home visitors could be specially trained members of the local communities rather than formally trained educational professionals. These home visitors, who were residents of the counties they served, could drive (or walk) into even the most isolated regions and provide learning experiences for both children and parents in the homes of their pupils.

The adaptation of the AEL model and the development of the CPEC-ECE program began in July, 1971. From its inception, the theoretical stance of the ECE program has been the belief that parents are the principal educators of their children. Administrators of the ECE program have taken the position that the learning experiences which take place in the home, the parents' attitudes toward education and child development, and the learning environment in the home are primary determinants of a child's educational development, especially in the preschool years but also throughout the child's school experience. The ECE program, then, has considered parents as well as children primary targets of the program.

II. PROGRAM OBJECTIVES

Very broadly defined, the ECE program objectives may be described as follows. Specific, detailed, and behaviorally stated objectives may be found in the original project proposal and in the continuation proposals for 1972, 1973, and 1974.

1. To provide a preschool educational experience for approximately 375 children between the ages of three and five years of age

who would not otherwise have an opportunity to enroll in a program prior to entry into first grade.

2. To provide children with an opportunity to socialize with other young children and participate in a group process.
3. To promote in children the development of social skills, the development of a positive self concept, an increased awareness of the self in relation to the environment, the development of creativity and initiative to learn and other related affective factors.
4. To promote in children such cognitive abilities as number concepts, prereading language skills, and such concepts as shape, size, relationships, color, texture, discrimination skills, and other abilities generally associated with preschool curricula.
5. To involve parents directly in the education of their children, to help parents to become more effective teachers of their children, and to promote development of parental attitudes which are conducive to maximum educational opportunities for their children.

III. PROGRAM COMPONENTS

Mobile Classrooms

Two large vans and two small vans have been converted into classrooms on wheels. The vans are fully carpeted and furnished comparably to a kindergarten classroom. The vans are well supplied with educational toys and materials and with audiovisual equipment. The van teachers are fully certified teachers, two of whom hold masters degrees. On the large vans,

teacher aides assist the van teachers. The teacher student ratio on the vans is generally about 1:5.

Each van has a weekly route which it travels, spending one half day at each of eight stops. At each stop, children who live in that vicinity are brought to the van by their parents for the half day session. While at the van, children participate in both group and individual learning activities. Children engage in such activities as listening to stories, singing songs, creating finger plays, painting, cutting and pasting, building with blocks, dressing up and role playing, eating a snack, doing science experiments, and many other typical preschool activities. A major function of the van program is to provide children, many of whom live in isolated areas and have limited contacts with other children, an opportunity to develop social skills.

Home Visitors

Fifteen local women from the four county area have been specially trained over the three years of program operation to serve as home teachers or home visitors. Eleven of the women serve as full time home visitors and each is responsible for visiting about twenty-five homes per week. Four other home visitors serve part time as teacher aides or substitutes and visit about twelve homes per week.

Each home visitor has a regularly scheduled appointment each week with each family she serves. The home visitor goes to the child's home, taking with her such materials as a Parent's Guide, books, toys, materials and whatever equipment she needs for the day's activities. In the home, the home visitor discusses with the parent and child the learning activities which they did in the home during the week. She then spends nearly

an hour engaging the child in various educational games and activities while the parent observes her teaching techniques. Before she leaves the home, the home visitor goes over with the parent the learning activities which are suggested for the parent and child to perform in the home during the coming week. The home visitor leaves in the home books from the lending library, toys from the toy lending library, and any materials which the parent and child might need to carry out the week's learning activities.

Television Program

The "Captain Kangaroo" show is currently used for the TV component of the ECE program. CBS provides the ECE staff with advance copies of each week's script. Helen Skinnell, the curriculum specialist employed by the ECE program, reviews each script and writes a synopsis of each day's TV program for inclusion in the Parents' Guide. Along with the synopsis, Ms. Skinnell also describes learning activities which relate to the program which the parent and child may perform in the home. A second guide is prepared for teachers and home visitors so that they might integrate their weekly lessons with the activities performed in the home.

The TV program is intended to serve as a vehicle through which parents may become motivated to engage in learning activities with their children. Parents are expected to watch at least part of the TV program with their children two or three days each week. When accompanied by the Parent's Guide, the TV show provides parents with an informal curriculum around which they can focus learning activities in the home. In addition to the material related to the TV program, the Parent's Guide also includes information about child development and child rearing.

TARGET POPULATION

The number of children enrolled in the ECE program has fluctuated throughout the year as children have left the program and new children have been added. As of March, 1974, there were 121 children enrolled who had also been enrolled during 1972-73, 208 children who had enrolled between August, 1973, and December, 1973, and 9 children who had enrolled between January, 1974 and March, 1974. The total enrollment in March, 1974 was 335 children.

Of the 335 children enrolled in March, 1974, 19 were two years of age as of September, 1973 (but turned three within a few weeks), 140 were three years of age, 142 were four years of age, and 34 were five years of age. Many five year olds who might have been served by the ECE program two or three years ago are now served by kindergarten and headstart programs which have recently been initated in the CPEC area. During 1973-74, then, 90% of the program participants were less than five years of age.

In addition to the 335 children served directly by the ECE program, there were 410 siblings of target children who may have received indirect program benefits due to their parents' involvement in the program, their sibling's participation in the project, and the availability of ECE materials in their homes. Siblings of target children who are younger than the target child are especially apt to receive indirect program benefits. There were 112 children during 1973-74 who were younger siblings of target children.

Families of target children lived primarily in a rural area or small town. The families of 124 target children lived on a farm, families of 68 children lived in a village with a population of less than 250 persons, families of 97 children lived in a small town (population 250-2500) and families of 42 children lived in a town with a population of more than 2500 persons. Eighty-seven percent of the target children, then, were from families who lived either on a farm or in a community of less than 2500 persons. These data are reported in Table 1.

The data in Table 2 indicate the income levels of target families for the three years of the project. The income levels reported in this table reflect the yearly income for the family, including that produced by working mothers. It should be noted that these income figures were supplied by the families and that consequently the data may not be entirely accurate. The data are subject both to understatement (for internal revenue or welfare purposes) and to overstatement (for purposes of pride). As indicated in Table 2, there have not been substantial changes in the income levels of program participants over the three year period of program operation. Since the ECE program has no income level requirements, it is open to all persons in the area regardless of income. Programs which do have income level requirements (e.g., Homestart and Headstart) enroll many of the low income families which might otherwise be served by the ECE program. While the ECE staff have attempted to recruit as many low income children as possible who were not served by other programs, only about 7% of the ECE participants are from extremely low income families (less than $3,000 per year).

Table 3 reflects the educational levels of the mothers and fathers of ECE children. About 38% of the mothers and 40% of the fathers were

TABLE 1

SIZE OF COMMUNITY IN WHICH TARGET FAMILIES LIVE

Size of Community	Number of Families	Percent of Families
Farm	124	37
Village (50-250 population)	68	21
Small Town (250-2500 population)	97	29
Town (2500-25,000 population)	42	13
City (25,000-500,000 population)	0	0
TOTALS	331	100

TABLE 2

COMPARISONS OF YEARLY FAMILY INCOME LEVELS FOR ECE FAMILIES FOR THE YEARS 1971-72, 1972-73, and 1973-74

Yearly Family Income Level	Percent		
	1971-72	1972-73	1973-74
Under $1,000	3	2	1
$1,000-$2,999	6	8	6
Subtotal	9	10	7
$3,000-$4,999	24	17	16
$5,000-$6,999	22	20	24
Subtotal	46	37	40
$7,000-$8,999	16	20	20
$9,000 and up	28	33	33
Subtotal	44	53	53
TOTALS	99	100	100

NOTE: These figures do not account in any way for inflationary trends over the three year period.

not high school graduates. (Again, it should be noted that these are self-report data and they may not, therefore, be precisely accurate.) About 18% of the mothers and 22% of the fathers failed to complete a grade beyond the eighth grade while only 15% of the mothers and 22% of the fathers had any college experience. About 5% of the mothers and 13% of the fathers completed a four year college program.

In summary, the target population for 1973-74 may be described as follows:

(1) As of March, 1974, there were 335 children enrolled in the program. Most of these children (90%) were less than five years of age as of September 1, 1973 and most (65%) were new children who had enrolled since August 1, 1973.

(2) The 335 target children had an aggregate of 410 siblings who may have received indirect program benefits through the participation of their parents.

(3) The families of target children resided in a rural area and most families lived on farms (37%) or in villages or small towns (50%).

(4) Most families of target children had an annual income of more than $7,000 (53%) but 23% of the families had an annual income of less than $5,000.

(5) Most parents of target children were high school graduates (61%) but about 20% of the parents had not been educated beyond a grade school level. Less than 10% of the parents were college graduates.

(6) Most families of target children (76%) were rated in the lowest two classes on the Hollingshead Index of social class level.

TABLE 3

LAST GRADE OF FORMAL SCHOOLING COMPLETED
BY PARENTS OF TARGET CHILDREN

Grade	Number of Fathers	Number of Mothers
3-4 (or less)	11	3
5-6	8	8
7-8	54	50
9	25	13
10-11	32	53
12	126	152
3 Years or less of college	30	34
4 Years of college (B.A. or B.S.)	25	14
More than 4 years of college	15	3
TOTALS	326	330

PROGRAM PARTICIPATION

I. PARTICIPATION VARIABLES

Throughout the project year, records of participation were maintained by teachers, home visitors, and parents on several variables as follows.

Van Attendance

Van attendance records were maintained for each child. These records included the number of scheduled van sessions which each child had an opportunity to attend and the number of sessions which each child actually attended.

Home Visits Met

For each child, home visitors maintained a record of the number of scheduled home visits and the number of visits actually met.

Home Visitor Ratings

Twice during the project year, in January and again in May, each home visitor rated each of her families as to their degree of program participation. Home visitors assigned each family a rating of 1 (high), 2 (medium), or 3 (low).

Captain Kangeroo (CK) Program

Each ECE family was expected to watch the Captain Kangeroo (CK) TV program. Parents were asked to maintain weekly records of the number of days each week that their child saw at least part of the program, the number of hours that the child spent watching the program, and the number of

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days and number of hours that they (parents) watched the program.

CK Learning Activities

Each week the Parents' Guide contained suggested learning activities which related in some way to the CK programs for that week. Parents were asked to maintain records of the number of these activities which they performed each week.

Other Learning Activities

In addition to the suggested learning activities in the Parents' Guide, parents were also encouraged to provide their children with a variety of learning experiences through their routine daily activities. Home visitors showed parents how such activities as shopping, cooking, doing housework, taking walks, eating meals, etc. could become lessons in such concepts as numbers, shapes, sizes, textures, language, sensory awareness, grouping and discrimination and others. Such activities as playing educational games, reading stories, or encouraging the child to express himself were also considered learning activities. In short, any activities which the parent performed with the child and through which he/she made a conscious effort to provide the child with a learning experience were considered "other learning activities" and parents were asked to keep a weekly record of these along with the CK activities.

II. PARTICIPATION DATA

During the 1973-74 project year, 332 children made at least one visit to a mobile van and 248 children attended the van sessions with some regularity (attendance at at least 50% of the scheduled sessions). In all, there

were 6,237 child visits to the vans at an average of 2¼ hours per session for approximately 14,033 total child contact hours on the vans.

There were 354 children who participated in at least one home visit during the year and of these, 350 children participated in at least 50% of the visits scheduled for them. There were a total of 9,056 home visits made to project families and the average visit was slightly less than one hour in duration.

Parents who participated in the program reported that they had performed a total of 27,019 learning activities from the Parents' Guide and 166,666 other learning activities for a grand total of 193,685 learning activities.

In Table 4, participation data for all variables have been compiled for the first 15 weeks (9/10/73 - 12/21/73), for the next 18 weeks (12/31/73 - 5/3/74) and for the total year. The scheduled van meetings and scheduled home visits reflect the mean numbers scheduled per child rather than the total number of scheduled sessions. That is, in the 33 weeks of program operation, there were 33 van sessions and 33 home visits scheduled for all children who participated in the program from the first week through the last week. However, children who entered the program late or who dropped out during the year would have had fewer than 33 sessions scheduled for them.

As indicated in this table, the mean number of days of van attendance was 18 days per child for a mean attendance rate of 64%. For home visits, the mean number of visits per child was 26 and the mean rate of home visits met was 87%. The mean HV ratings of family participation was slightly higher (1.42 on a scale of 1=high, 2=medium, 3=low) for the second half of the year than for the first (1.55). The TV participation and learning activities

TABLE 4

PARTICIPATION VARIABLES FOR 1ST HALF OF PROGRAM YEAR, 2ND HALF OF PROGRAM YEAR AND TOTAL YEAR

Participation Variables	Mean 1st Half (15 weeks) N = 316	Mean 2nd Half (18 weeks) N = 323	Mean Total Year (33 weeks) N = 346
Scheduled Van Meetings	-	-	28 days*
Days Attended Van	-	-	18 days
Percent Van Attendance	-	-	64%
Scheduled Home Visits	-	-	30 days*
Home Visits Met	-	-	26 days
Percent Home Visits Met	-	-	87%
Home Visitor Rating	1.55	1.42	1.44
Days Child Watched CK	49 days/child	54 days/child	95 days/child
Hours Child Watched CK	44 hours/child	41 hours/child	78 hours/child
Days Parent Watched CK	42 days/parent	47 days/parent	81 days/parent
Hours Parent Watched CK	31 hours/parent	29 hours/parent	55 hours/parent
CK Learning Activities	39 per family	44 per family	78 per family
Other Learning Activities	228 per family	280 per family	482 per family
TOTAL Learning Activities	267 per family	324 per family	560 per family

*For children who participated in the program for the full 33 weeks, there were 33 scheduled van sessions and 33 scheduled home visits. For children who participated less than 33 weeks, there were fewer than 33 scheduled sessions. The figures in this table represent the mean scheduled per child.

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data were not appreciably different for the 1st half of the year as compared with the 2nd half. The 2nd half figures were slightly higher for most variables but the 2nd half was slightly longer than the first half (18 weeks vs. 15 weeks).

Other attendance data (not depicted in Table 4) indicated that there were 14 children who did not attend the van at all, 34 children who attended 25% or less of the scheduled sessions and 50 children who attended 26% - 50% of the scheduled sessions. There were 156 children who attended more than 76% of the scheduled van sessions and 17 of these children attended 100% of the van sessions. The rates of attendance were higher for home visits than for van sessions. There were only 4 children who met fewer than 51% of their scheduled visits, 273 children who met 76-99% of their visits and 35 children who met 100% of their scheduled visits.

Children who had been in the program three years had a slightly lower rate of van attendance, a slightly higher rate of home visits met, a slightly higher mean HV rating, and more TV program participation and CK learning activities but fewer "other" learning activities than children in the program one year or two years. The one year families were lower than the other groups on home visits met, TV participation and CK learning activities and they were lower than the two year group on "other" learning activities. The one year group had the highest rate of van attendance.

Table 5 provides a participation profile of the average ECE family based on the arithmetic mean for all families.

TABLE 5

PARTICIPATION OF THE AVERAGE ECE FAMILY

Variable	Participation
Van	Child attended 18 days during the year for an attendance rate of 64%.
Home Visits	Family met with home visitor 26 days for an attendance rate of 87%.
HV Rating	Family rated "high-medium".
Child CK program	Child watched approximately 3 shows per week for 49 minutes per show.
Parent CK program	Parent watched approximately 2 shows per week for 42 minutes per show.
CK Learning Activities	Parents and child did approximately 2 activities per week from the Parents' Guide.
Other Learning Activities	Parents and child participated in approximately 15 other learning activities per week in addition to the CK activities.

HOME VISITOR FAMILY RATING

Each home visitor was requested to complete a Home Visitor Family Rating Form for each of her program families. The rating form consisted of 20 items each of which was defined in detail on the instructions to the home visitors. The rating scale consisted of ten points, 0-9. Home visitors were asked to evaluate each of their families as to their participation or changes in their behavior as defined.

Mean scores by item on the HV Rating Form are represented in Table 6. As indicated in this table, the items rated the highest by the home visitors were improvements in the child's attitude toward learning (8.17), the degree of participation by the child (8.07), and the long range program effects on the child (8.06). The lowest rated items were other benefits through referrals (5.42), father participation (5.85), other family member participation (6.27), changes in family life style (6.36), and health or medical benefits (6.57). For all other items, the mean ratings ranged from 7.14 to 7.63. Means for all items were above the midpoint of the ten point rating scale and means for most items (15) were above the eighth most positive point on the scale.

For four items, child attitude toward learning, health or medical benefits, other benefits, and long range effects on the child, 50% or more of the families were rated in the extremely positive category. For three other items, child participation, mother participation, and long range family effects, 40% or more of the families were rated as extremely positive. At least 90% of the families were rated as more positive than negative on all items except father participation, other family member

TABLE 6

MEAN SCORES BY ITEM ON HV FAMILY RATING

Item	Mean
Child participation	8.07
Mother participation	7.52
Father participation	5.85
Other family member participation	6.27
Child cognitive gains	7.48
Child social behavior gains	7.37
Child self-control	7.14
Child self-concept improvement	7.63
Child attitude toward learning	8.17
Parent attitude changes	7.43
Parent knowledge	7.40
Parent social behavior	7.45
Parent self-concept	7.31
Parent ability as a parent	7.55
Parent behavior toward child	7.49
Family life style	6.36
Health or medical benefits	6.57
Other benefits through referrals	5.42
Long range effects (child)	8.06
Long range effects (family)	7.59

Rating Scale = 0-9

participation, changes in family life style, health or medical benefits, and other benefits through referrals. It is interesting to note that while 50% of the families were perceived as having received an extremely high degree of benefits through referrals, 31% were perceived as having received no benefits through referrals. These figures suggest that families who had need of referral services received them and benefited from them while other families had no need of such services and consequently could not benefit from them.

In Table 7, the HV family rating data are reported by the length of time the families had participated in the ECE program. Represented in this table are 211 families who were one year participants, 88 families who were two year participants, and 21 families who participated for three years. Mean ratings have been reported for each of these groups with an asterisk (*) used to designate the highest rated group for each item. As indicated in this table, the three year group was the highest rated group on sixteen items. The magnitude of the differences between this group and the next highest group ranged from .15 (child self-control) to 3.76 (benefits through referrals). The two year group was the highest rated group on three items and the one year group was the highest rated group on one item.

In an effort to determine the relationship between the home visitors' assessment of a family's participation in the program and the gains made by the family as a result of the program, a Pearson Product-Moment correlation (r) analysis was made. The resultant correlation matrix showed the relationships among years in the program, all items of the rating scale, and the grouped items which form the subscales for total participation,

TABLE 7

MEAN SCORES ON HV FAMILY RATING BY
NUMBER OF YEARS FAMILY HAD
PARTICIPATED IN PROGRAM

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Item	1 Year N =211 Mean	2 Years N = 88 Mean	3 Years N = 21 Mean
Child participation	8.06	8.04	8.43*
Mother participation	7.55	7.37	8.14*
Father participation	6.03*	5.47	5.90
Other family member participation	6.20	6.52*	6.40
Child cognitive gains	7.38	7.82	8.14*
Child social behavior gains	7.32	7.56	7.86*
Child self-control	7.02	7.47	7.62*
Child self-concept improvement	7.58	7.78	8.19*
Child attitude toward learning	8.14	8.33*	8.24
Parent attitude changes	7.53	7.22	7.95*
Parent knowledge	7.44	7.39	7.81*
Parent social behavior	7.49	7.47	7.67*
Parent self-concept	7.32	7.32	7.67*
Parent ability as a parent	7.62	7.41	7.90*
Parent behavior toward child	7.59	7.28	8.00*
Family life style	6.46	6.01	7.19*
Health or medical benefits	6.60	6.25	7.53*
Other benefits through referrals	5.05	5.24	9.00*
Long range effects (child)	8.04	8.16*	8.09
Long range effects (family)	7.59	7.50	8.05*

* = highest mean

total child gains, and total parent gains. There were negligible correlations between years in the program and all rating scale items and there were moderate to very high correlations among the items themselves. The correlations between total participation and gain items ranged from .23 to .58. The correlation between total participation and total child gains was .52 and the correlation between total participation and total parent gains was also .52.

The correlational data have been summarized in Table 8 to show the relationships between participation and gain variables.

I. SUMMARY OF HV FAMILY RATINGS

The HV Family Rating data may be summarized as follows:

1) Families were generally rated high on both participation and gains made as a result of the program.

2) Families who had been in the program three years were generally rated higher on both participation and gains than families who had been in the program one year or two years.

3) Home visitors perceived the greatest gains for children and slightly lesser gains for parents.

4) There was a high positive relationship between the degree of family participation and the degree of both child and parent gains.

5) The degree of participation by the child was closely related to the mother's participation.

TABLE 8

SUMMARY CORRELATION MATRIX SHOWING RELATIONSHIPS AMONG PARTICIPATION AND TOTAL GAIN VARIABLES

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	Child Participation	Mother Participation	Father Participation	Other Family Participation	Total Participation	Total Child Gains	Total Parent Gains
Child Participation	-	.61	.36	.29	.56	.54	.34
Mother Participation	.61	-	.56	.32	.67	.53	.68
Father Participation	.36	.56	-	.45	.76	.45	.43
Other Family Participation	.29	.32	.45	-	.69	.28	.25 NS
Total Participation	.56	.67	.76	.69	-	.52	.52
Total Child Gains	.54	.53	.45	.28	.52	-	.55
Total Parent Gains	.34	.68	.43	.25	.52	.55	-

NOTE: ALL correlations are significant at the .0001 level except as indicated "NS".

PARENT REPORTS

I. PARENT EVALUATION

Since parents are themselves program participants and are directly involved in the project, they are in a position to provide relevant information about the operation of the project. The Parent Evaluation Form was designed to elicit from parents their feelings about the various phases of the program and their perception of the effectiveness of the program. The Parent Evaluation data provide information which relates to the perceived program effects on parents and on children and they also provide the project administrators with information about the relative quality of the various program services which parents receive.

The Parent Evaluation forms were distributed by home visitors to all parents enrolled in the program as of March, 1974. In an effort to insure confidentiality and to encourage parents to respond honestly on the evaluation forms, envelopes were distributed along with the questionnaires. Parents were instructed to complete the evaluation form, seal it in the envelope provided, and give it to their home visitor. The home visitor, then, would not have access to the completed questionnaire. In those cases in which parents were unable to read sufficiently to complete the questionnaire, home visitors were instructed to read a copy to them. Questionnaires were distributed to 313 parents and usable responses were received from 303 parents for a return rate of 96.8%. The 303 responding parents represented 325 of the 335 children enrolled or 97.0% of the program children. The survey sample of nearly 97% of the population was considered a truly representative sample.

Table 9 is a copy of Parts I, II, and III of the Parent Evaluation on which mean scores have been reported for each item and approximated graphically with blackened circle. Part I of the questionnaire consisted of a scale ranging from 0 (not at all) to 4 (very much) on which parents were asked to express their feelings about various aspects of the program. The mean ratings on this part ranged from a low of 2.1 for item 24 to a high of 3.9 for items 8 and 10. Twenty-one items had a mean rating between 3.1 and 3.9 (much to very much) while seven items had a mean rating between 2.1 and 2.9 (some to much). The items which received the highest ratings were those which pertained to home visitors (item 8=3.9, item 7=3.8), those which pertained to the total program (item 11=3.7, item 28=3.7). Items which received the lowest ratings were those which pertained to the father's participation (item 24=2.1), sending the child to the van every day (item 22=2.4), continuing the home visits after the child has entered first grade (item 14=2.5), and parent meetings (item 25=2.6). The mean of the mean ratings for all items on Part I was 3.3.

In Part II of the evaluation, parents were asked to rate the amount of change which they perceived in themselves or in their children as a result of their participation in the ECE program. The rating scale in Part II consists of six points ranging from no change (0) to very much change (5). Mean ratings on Part II range from a low of 2.8 (item 35) to a high of 4.1 (item 41). The highest rated items were those which pertained to changes in the child's cognitive abilities (item 41=4.1), the child's interest in learning (item 40=4.0), the child's reading behavior (item 42=3.9), the child's self concept (item 38=3.5 and the child's social behavior (item 39=3.5). The items which were rated the

TABLE 9

PARENT EVALUATION MEANS

PART I. Please circle the number which best expresses your feelings.

	Very Much	Much	Some	Not Much	Not At All	Mean
1. The home visitor is interested in me.	4 ●	3	2	1	0	3.6
2. I talk over problems with her.	4	3 ●	2	1	0	2.8
3. I have learned about teaching my child from the home visitor.	4	●3	2	1	0	3.2
4. The home visitor spends time teaching me.	4	3 ●	2	1	0	2.8
5. I look forward to the home visits.	4●	3	2	1	0	3.6
6. The books and materials are helpful to me.	4 ●	3	2	1	0	3.5
7. My child has learned from the home visitor.	4●	3	2	1	0	3.8
8. My child looks forward to the home visits.	4●	3	2	1	0	3.9
9. The home visitor is on time for appointments.	4 ●	3	2	1	0	3.6
10. We are satisified with the home visitor.	4●	3	2	1	0	3.9
11. Would you recommend the ECE Program to other parents?	4 ●	3	2	1	0	3.7
12. Do you talk about the program with your friends?	4	●3	2	1	0	3.2
13. Do you like the idea of parents being part of the program?	4 ●	3	2	1	0	3.5
14. Would you like to continue the home visitor program even after your child has started kindergarten or first grade?	4	3 ●	2	1	0	2.5
15. Is the Parent's Guide helpful to you?	4	●3	2	1	0	3.3
16. Do you read and use the Parent's Guide?	4	●3	2	1	0	3.2
17. Are you satisfied with the van portion of the program?	4 ●	3	2	1	0	3.6
18. Are you satisified with the van teacher?	4 ●	3	2	1	0	3.6
19. Is the van good for your child?	4 ●	3	2	1	0	3.7
20. Is the TV Program helpful to you?	4	3●	2	1	0	2.9

TABLE 9
CONTINUED

		Very Much	Much	Some	Not Much	Not At All	Mean
21.	Is the TV program good for your child?	4	● 3	2	1	0	3.3
22.	Would you like to send your child to the van every day?	4	3	● 2	1	0	2.4
23.	Does the child's father like the ECE Program?	4	● 3	2	1	0	3.2
24.	Does the father help with the learning activities?	4	3	● 2	1	0	2.1
25.	Are the parent meetings helpful?	4	3	● 2	1	0	2.6
26.	Are you informed in advance about changes in the program schedule?	4	● 3	2	1	0	3.4
27.	Are you told in advance about parent meetings?	4	● 3	2	1	0	3.5
28.	Do you think the ECE Program should be continued?	4	● 3	2	1	0	3.7

PART II. How did you or your child change as a result of the whole ECE program? Please rate the amount of change by circling a number from 0-5 for each question.

		No Change	Very Small Change	Small Change	Noticeable Change	Much Change	Very Much Change	Mean
29.	The amount of time I spend with my child.	0	1	2	3 ●	4	5	3.1
30.	The amount of time I spend making things with my child.	0	1	2	3 ●	4	5	3.3
31.	The amount of time I spend reading to my child.	0	1	2	3 ●	4	5	3.3
32.	How much I know about my child.	0	1	2	3 ●	4	5	3.4
33.	How much I know about teaching children.	0	1	2	3 ●	4	5	3.3
34.	How much I know about making toys and games.	0	1	2	3 ●	4	5	3.4
35.	How I feel about myself.	0	1	2	● 3	4	5	2.8
36.	How I feel about my child.	0	1	2	3 ●	4	5	3.2
37.	How my child feels about me.	0	1	2	3 ●	4	5	3.1

TABLE 9
CONTINUED

	No Change	Very Small Change	Small Change	Noticeable Change	Much Change	Very Much Change	Mean
38. How my child feels about himself.	0	1	2	3	4	5	3.5
39. How well my child gets along with other children.	0	1	2	3	4	5	3.5
40. How interested my child is in learning.	0	1	2	3	4	5	4.0
41. How much my child knows about numbers, colors, and shapes.	0	1	2	3	4	5	4.1
42. The amount of time my child spends reading or listening to stories.	0	1	2	3	4	5	3.9

PART III. Please rate your opinions of the following by circling a number from 0 to 9. Use 0 to indicate an extremely negative feeling, 9 to indicate an extremely positive feeling, and numbers between 1 and 8 to indicate less extreme feelings.

What is your opinion of:

	Very Poor				Fair					Very Good	Mean
43. The home visitor?	0	1	2	3	4	5	6	7	8	9	8.8
44. The vantteacher?	0	1	2	3	4	5	6	7	8	9	8.2
45. The project administrators?	0	1	2	3	4	5	6	7	8	9	8.0
46. The Parent Guide?	0	1	2	3	4	5	6	7	8	9	7.9
47. The TV program?	0	1	2	3	4	5	6	7	8	9	7.4
48. The learning activities?	0	1	2	3	4	5	6	7	8	9	8.1
49. The materials brought by the home visitor?	0	1	2	3	4	5	6	7	8	9	8.4
50. The effect of the home visits on you?	0	1	2	3	4	5	6	7	8	9	8.2
51. The effect of the home visits on your child?	0	1	2	3	4	5	6	7	8	9	8.7
52. The effect of the van on your child?	0	1	2	3	4	5	6	7	8	9	8.3
53. The parent meetings?	0	1	2	3	4	5	6	7	8	9	6.8
54. The whole ECE program?	0	1	2	3	4	5	6	7	8	9	8.2

lowest were those which pertained to changes in the parent's self concept (item 35=2.8), and the parents' relationship with their child (item 29= 3.1, item 37=3.1, item 36=3.3). The mean of the mean responses for Part II was 3.4, a rating about half way between noticable change and much change.

Part III consisted of a ten point scale ranging from very poor (0) to very good (9) on which parents were asked to rate their feelings about various aspects of the program. Mean parent responses on Part III ranged from a low of 6.8 (item 53) to a high of 8.8 (item 43). The highest rated items were those which pertained to the home visitor (item 43=8.8, item 51=8.7) while the lowest rated items pertained to parent meetings (item 53=6.8) the TV program (item 47=7.4) and the Parent Guide (item 46= 7.9). The mean of the mean responses on Part III was 8.1.

Part IV of the Parent Evaluation Form consisted of ten open ended response items on which parents were asked to write in their responses to questions about the program. These responses, not recorded here, provided the project management with additional feedback from parents about the degree of their satisfaction with the program and their suggestions for change.

II. PARENT QUESTIONNAIRE

The Parent Questionnaire was developed in an effort to determine if there were any changes in the attitudes or reported behaviors of ECE Parents from the pretest in September to the posttest in May. The instrument was administered in September, 1973 to all ECE parents enrolled in the program. The instrument was administered to the same parents

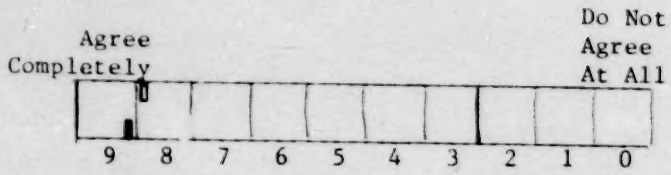
again in May, 1974. In addition, the instrument was administered at the same times to a control group of parents who did not have children in the ECE program or in any other preschool program. Control group families were approximately equivalent to ECE families in terms of residence, education level, and income. For both the ECE parents and the control group parents, questionnaires were included in the analyses only if the parents had completed both a pretest questionnaire and a posttest questionnaire. Parents who entered the program too late to take a pretest or those who dropped from the program before posttests were administered were not included in the analysis. The ECE group consisted of 287 parents who completed both a pretest and a posttest. The control group consisted of 42 parents who completed both a pretest and a posttest.

The Parent Questionnaire has been reproduced in Table 10. In this table, the mean scores for the ECE parents have been indicated for the pretest (▯) and for the posttest (▮). In Table 11, these same mean scores have been reported by question and the differences between the pretests and the posttests have been computed. The data in Tables 10 and 11 indicate that the parents reported positive changes for eight items, negative changes for six items, and no changes for two items. The largest positive changes were on the questions "Do you know what things the school expects your child to know before he goes to kindergarten or first grade?" (+1.3); "How many times each week do you read a story to your child?" (+.7); "How much time do you spend teaching your child numbers, colors, words, ideas, etc?" (+.5); and "How much time do you spend making things with your child or playing with him?" (+.5). The largest negative changes were reported for the questions "How interested would you be in attending

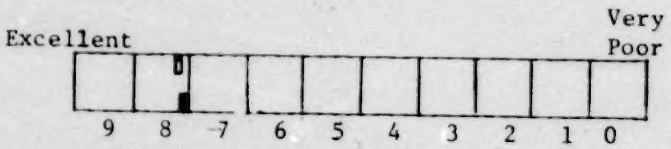
TABLE 10

MEAN RESPONSES ON PARENT QUESTIONNAIRE FOR
PRETEST (▯) AND POSTTEST (▮)

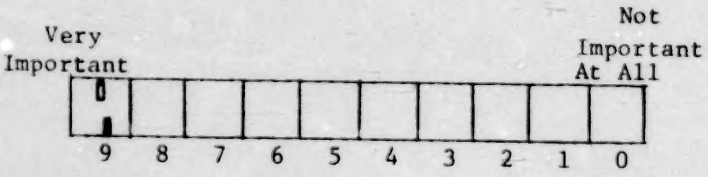
1. How do you feel about the statement that parents are the most important teachers of young children?



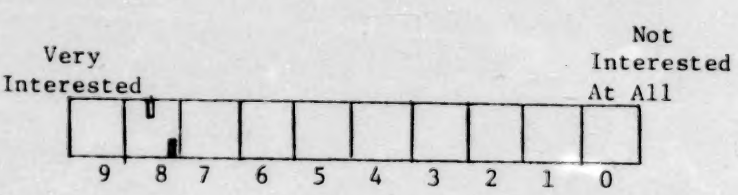
2. How well do you rate yourself as a parent?



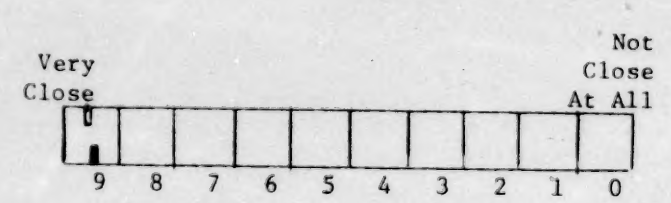
3. How do you feel about education for preschoolers?



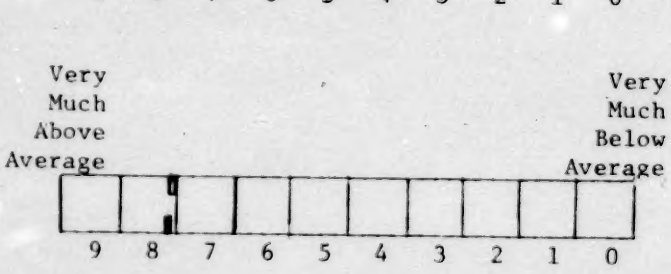
4. How interested would you be in attending meetings or reading books about how children learn?



5. How would you describe your relationship with your child?



6. How would you describe your child's intellectual development as compared with other children his age?



7. How would you rate yourself as a teacher of preschool children?

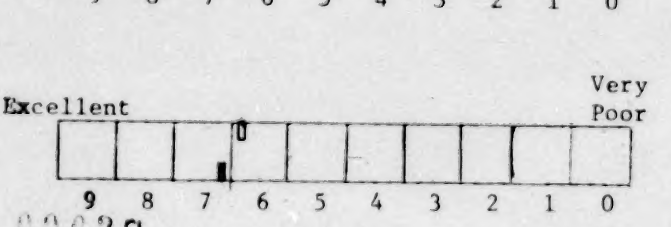


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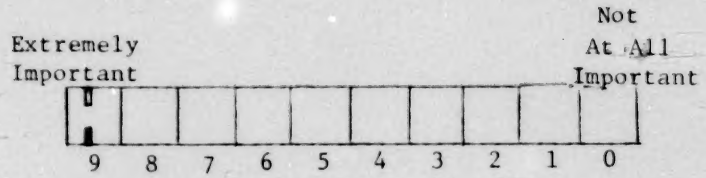
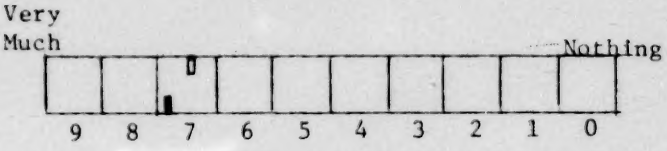
TABLE 10
CONTINUED

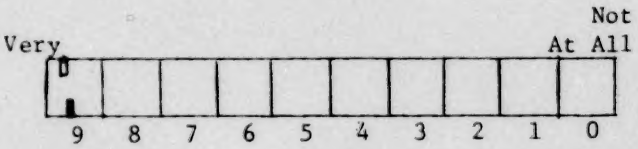
8. How important is education in the home?



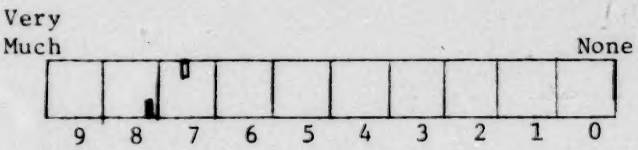
9. How much do you know about how children learn?



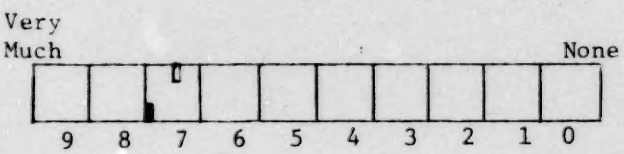
10. How involved should parents be in the education of their children?



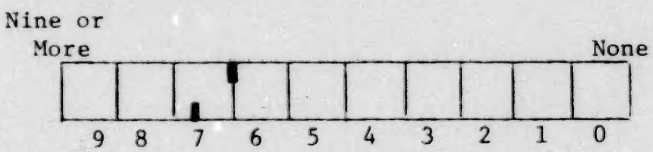
11. How much time do you spend teaching your child numbers, colors, words, ideas, etc.?



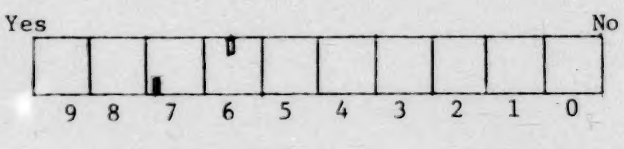
12. How much time do you spend making things with your child or playing games with him?



13. How many times each week do you read a story to your child?



14. Do you know what things the school expects your child to know before he goes to kindergarten or first grade?



15. When your child is in kindergarten or first grade, how many times in a year will you go to the school to talk with his teacher?

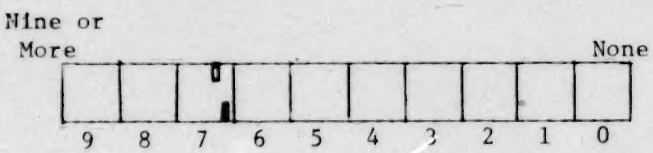
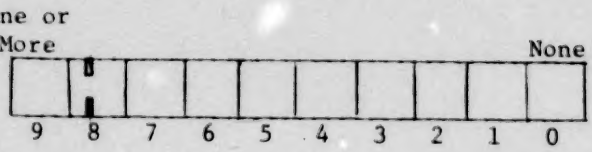


TABLE 10
CONTINUED

16. How many hours each week would you spend to help your child do better in school?



meetings or reading books about how children learn?" (-.4) and "When your child is in kindergarten or first grade, how many times in a year will you go to the school to talk with his teacher?" (-.2). For the other questions on which negative changes were reported, the magnitude of the changes was -.1. For the instrument as a whole, there was an overall mean change of +3.0.

In Table 12, the mean pretest and posttest scores for the control group parents are reported. Difference scores (d) have also been computed for the control group and compared with the d scores for the ECE group. The data in Table 12 indicate that for the control group there were positive changes on five items, negative changes on nine items and no change on two items. For the test as a whole, the overall difference score was -.6. The control group had a higher positive change score than the ECE group on one item ("How do you feel about the statement that parents are the most important teachers of young children?") and a lower negative change on two items. For six items, the ECE group had a higher positive change than the control group. The difference between the pretest-posttest scores of the ECE group on the following items was greater in a positive direction than the difference between the pretest-posttest scores of the control group: question 7 (+.3), question 9 (+.2), question 11 (+.7), question 12 (+.8), question 13 (+.6) and question 14 (+.1). For the questionnaire as a whole, there was a difference of +3.6 between the ECE group change scores and the control group change scores. Total mean scores on the Parent Questionnaire for the first year parents, second year parents, third year parents and control group parents are presented in Table 13.

TABLE 11

MEAN SCORES ON PARENT QUESTIONNAIRE
FOR PRETESTS AND POSTTESTS

Item	Mean		d
	Pretest N = 287	Posttest N = 287	
1	7.9	8.1	+ .2
2	7.2	7.1	- .1
3	8.5	8.4	- .1
4	7.6	7.2	- .4
5	8.6	8.5	- .1
6	7.1	7.2	+ .1
7	5.8	6.1	+ .3
8	8.6	8.6	0
9	6.4	6.8	+ .4
10	8.7	8.6	- .1
11	6.6	7.1	+ .5
12	6.4	6.9	+ .5
13	6.0	6.7	+ .7
14	5.5	6.8	+1.3
15	6.3	6.1	- .2
16	7.7	7.7	0
Total	114.9	117.9	+3.0

TABLE 12

MEAN SCORES ON PARENT QUESTIONNAIRE ON PRETESTS AND POSTTESTS FOR CONTROL GROUP WITH COMPARISON OF d SCORES FOR ECE AND CONTROL GROUPS

Item	Pretest N = 42	Posttest N = 42	d	ECE Group d
1	7.6	8.1	+ .5	+ .2
2	7.6	7.1	- .5	- .1
3	7.7	7.7	0	- .1
4	7.1	6.8	- .3	- .4
5	8.6	8.3	- .3	- .1
6	6.8	6.9	+ .1	+ .1
7	5.6	5.6	0	+ .3
8	8.5	8.4	- .1	0
9	5.7	5.9	+ .2	+ .4
10	8.7	8.6	- .1	- .1
11	6.4	6.2	- .2	+ .5
12	6.3	6.0	- .3	+ .5
13	5.3	5.4	+ .1	+ .7
14	3.9	5.1	+1.2	+1.3
15	6.1	5.8	- .3	- .2
16	8.0	7.2	- .8	0
Total	109.5	108.1	- .6	+3.0

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TABLE 13

MEAN SCORES FOR ECE AND CONTROL PARENTS
ON PARENT QUESTIONNAIRE

Parent Group	Mean Pretest	Mean Posttest	d
First Year Parents	113.2	116.7	+3.5
Second Year Parents	117.3	119.9	+2.6
Third Year Parents	118.2	119.0	+0.8
Total for ECE Parents	114.9	117.9	+3.0
Control Group (one year)	109.5	108.1	-0.6

99043

PROGRAM EFFECTS ON CHILDREN

I. METROPOLITAN READINESS TEST

The Metropolitan Readiness Test was administered to all first grade children in the four CPEC counties in September, 1973 in an effort to determine if children who had been enrolled in the ECE Program were as well prepared for first grade (as measured by this instrument) as children who had not been enrolled in the program. The Metropolitan was administered to approximately 1300 children in 70 first grade classrooms in 52 schools. As a service to the local schools, Metropolitan tests for all first grade students were scored by the CPEC-ECE staff and scores for all pupils were reported to the schools.

First grade teachers were asked to administer the tests in their classrooms and also to indicate for each child the preschool program, if any, in which the child had been enrolled prior to entry into first grade. If teachers were uncertain as to the preschool experience of a child, school records were used to provide the information. In addition, the preschool information provided by the teachers was reviewed by CPEC-ECE staff members and was validated through enrollment records of kindergarten, Headstart, and other preschool programs.

Preschool Programs

The preschool programs which first grade children had attended prior to entry into first grade are defined below.

Public Kindergarten: This is a traditional kindergarten program supported by state and local funds. The program operates five days per week for approximately six hours per day. Students attended the program for one school year prior to first grade entry.

09041

Title I Kindergarten: This is a traditional kindergarten program supported by Title I funds. The program operates five days per week for approximately six hours per day. Students attended the program for one school year prior to first grade entry.

Headstart: The Headstart program is comparable to a traditional kindergarten program. It operates five days per week for approximately seven hours per day. Students attended the program for one school year prior to first grade entry.

Homestart: The Homestart program is a home intervention program very similar to the ECE program. Students attend a mobile classroom for two hours per week and in addition home visitors spend two hours per week in the homes of their students. The program operates eleven months a year. The average length of program participation prior to first grade entry was slightly more than one year.

ECE: This program has been previously described in full. In summary, the program consists of a two hour mobile classroom session and a one hour home visit each week. The program operates for about nine months each year. Students had attended the program for one year prior to entry into first grade.

ECE plus Other: Some children had attended the ECE program as four year olds and then left this program to enroll in a different preschool program as five year olds. In most cases, children left the ECE program to attend public kindergarten.

Daycare: Eight children had been enrolled in a daycare program prior to first grade entry. This category was omitted form the data analyses because of the limited N.

Private Preschool: Four students had attended a private preschool prior to first grade entry. This category was omitted from the analyses because of the small N.

For purposes of the evaluation, samples of the 1300 first grade children were selected by preschool group. For each of the 70 first grade classrooms, the following were selected for inclusion in the study:

1. All students who had been enrolled in day care, homestart, Title I kindergarten, ECE, private kindergarten, or a combination of the ECE program and any other program.
2. Three (3) students who had been enrolled in public kindergarten. (Randomly selected)
3. Three (3) students who had been enrolled in Headstart. (Randomly selected)

4. Three (3) students who had not been enrolled in any preschool program. (Randomly selected)

Results

In Table 14, the Metropolitan Test results are reported by preschool group for each of the six Metropolitan subtest and for total score and percentile. For the ECE group, the mean scores on each subtest have been compared with the other preschool groups and the rank of the ECE group among the groups has been indicated. As indicated in this table, the percentile scores for all groups is quite low as compared with national scores. The highest percentile ranking is about 70 while the lowest is about 29.

The ECE children scored comparatively highest on the subtest "word meaning" on which they were the third highest scoring group. The ECE group ranked fifth on the "matching" subtest, sixth on "copying" and fourth on all other subtests and total score.

In Table 15, the preschool groups have been ranked by mean score for the total test. Means and standard deviations have been reported for each group. As indicated, the Title I K group had the highest mean score followed by the ECE and other group, State K, ECE, Headstart, None, and Homestart. An Analysis of Variance was run to determine whether the differences among the group means were statistically significant. The ANOVA procedure used was a one-way classification with the model statement "Total Score = Program" and the test statement "Test Program By Error" (See Statiscal Analysis System, Barr and Goodnight). The ANOVA table is presented in Table 16. As indicated in this table, an F value

TABLE 14

MEAN SCORES ON METROPOLITAN BY
PRESCHOOL EXPERIENCE

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	Program						
Metropolitan Subtest	Public K N = 69	Title I K N = 39	Headstart N = 42	Homestart N = 20	ECE N = 61	ECE + Other N = 21	None N = 113
Word Meaning	8.64	9.49	8.09	6.05	8.82[3*]	9.95	7.60
Listening	9.77	10.69	9.26	6.30	9.59[4]	11.09	9.14
Matching	9.25	9.92	7.86	6.70	7.79[5]	9.95	7.11
Alphabet	12.74	12.72	10.40	6.65	12.38[4]	13.48	9.59
Numbers	14.16	13.90	12.12	8.25	12.90[4]	13.43	11.16
Copying	9.00	9.67	8.69	4.80	7.28[6]	8.95	7.41
Total	63.79	66.38	56.19	37.90	58.76[4]	66.10	52.05
Percentile	65.75	70.38	54.33	29.16	58.41[4]	69.76	48.72

*Rank

TABLE 15

MEAN SCORES ON METROPOLITAN
BY PRESCHOOL GROUP

BEST COPY AVAILABLE

Preschool Group	N	Mean	S.D.
Title I K	39	66.38	16.5
ECE + Other	20	66.10	18.3
State K	70	63.79	17.5
ECE	62	58.76	17.6
Headstart	42	56.19	19.5
None	112	52.05	20.3
Homestart	21	37.90	18.2

of 9.05727 was obtained and this was significant at the .0001 level, indicating that the difference between one or more of the group means was statistically significant.

In order to locate the source of the differences among the group means, a Duncan's Multiple Range Test was run (see S.A.S.). The results of the Duncan's Test are reported in Table 17. In this table, "N.S." has been used to indicate that the difference between the means of two groups was not a statistically significant difference while * has been used to indicate that the difference between the means of the groups was statistically significant at the .05 level of confidence. As indicated in Table 17 the difference between the mean of the Title I K group (66.38) and the means of the ECE and Other group (66.10), the State K group (63.79) and the ECE group (58.76) were not statistically significant while the difference between Title I K and Headstart, None, and Homestart were significant. Similarly, the differences between the ECE and Other group mean and that of State K, ECE, and Headstart were not significant while the differences between the ECE and Other group mean and those of the None and Headstart groups were significant. For the ECE group, the mean (58.76) was significantly different only from the mean for the None group (52.05) and the Homestart group (37.90). There were, then, no significant differences between the mean scores of the ECE group and the mean scores of the Title I K group, the ECE and Other group, the State K group or the Headstart group.

(The fact that relatively few of the differences among the group means were statistically significant differences may be attributed to the high degree of variability of scores within each of the groups and the relatively small sample size which, along with the magnitude of the differences in mean scores, contribute to the power of the test for differences.)

00049

TABLE 16

ANALYSIS OF VARIANCE TABLE
FOR TOTAL METROPOLITAN
SCORE BY PRESCHOOL GROUP

Source	DF	SS	MS
Preschool Program	6	18874.977	3145.82945
Error	359	124690.152	347.32633
Residual	359	124690.152	347.32633
Corrected Total	365	143565.128	393.32912

Tests	Source	DF	SS	MS	F	P>F
Numerator	Preschool Program	6	18874.977	3145.82945	9.05727	.0001
Denominator	Error	359	124690.152	347.32633		

00050

TABLE 17

LOCATION OF DIFFERENCES AMONG GROUP MEANS ON METROPOLITAN AS DETERMINED BY DUNCAN'S MULTIPLE RANGE TEST

Group	Means	Title I K 66.38	ECE and Other 66.10	State K 63.79	ECE 58.76	Head-start 56.19	None 52.05	Home-start 37.90
Title I K	66.38	--	N.S.	N.S.	N.S.	*	*	*
ECE and Other	66.10		--	N.S.	N.S.	N.S.	*	*
State K	63.79			--	N.S.	N.S.	*	*
ECE	58.76				--	N.S.	*	*
Headstart	56.19					--	N.S.	*
None	52.05						--	*
Homestart	37.90							--

N.S. = Not Significant

* = $p \leq .05$

00051

II. PEABODY PICTURE VOCABULARY TEST

The Peabody Picture Vocabulary Test (PPVT) has been administered to all children as they entered the ECE program and to all children in the program at the end of each program year since fall, 1971. The data reported in this section reflect the PPVT data not only for the project year 1973-74 but for the duration of the project (1971-74).

The PPVT has been administered at each administration by home visitors who have been specially trained in the administration procedures. Each year, a training session has been conducted for new home visitors and a review session has been conducted for experienced home visitors.

In addition to the PPVT administration to the ECE children, the test was administered in September, 1973 and again in May, 1974 to a group of 47 children who had not participated in the ECE program or in any other preschool program. (The control group has been described on page).

A summary of the PPVT data for all administrations of the test is reported in Table 18. As indicated in this table, the 1973-74 pretest-posttest administration yielded a mean pretest score of 90.3 for the control group and 95.4 for the one year ECE group. On the posttests for these two groups the control group had a mean score of 95.9 for a gain of 5.6 while the ECE group had a mean of 107.9 for a gain of 12.5. The control group data suggest that a test-retest procedure will produce a gain score of 5.6 which is attributable to maturation or a test practice effect. Since the ECE group showed a pretest-posttest gain score in excess of 5.6 (12.5), the additional gain (6.9 points) may be attributed to program effect. It should be noted that the scores reported in Table 18

are derived I.Q. scores or standard scores with a mean of 100 and a standard deviation of 15.

Other data reported in Table 18 indicate that children who had been in the program two years as of May, 1974 and who had been tested in September, 1972, May, 1973 and September, 1974, showed a one year gain score of 8.8 and a two year gain score of 16.7. Children who had been in the program three years as of May, 1974 and who were first tested in September, 1971 showed a one year gain of 7.0, a two year gain of 13.2 and a three year gain of 23.0.

Summary

The Peabody Picture Vocabulary Test data may be summarized as follows:

(1) ECE children who entered the program in September, 1973 and a pretest-posttest gain score which was 6.9 points higher than that of a control group tested at the same time.

(2) ECE children who had been in the program three years as of May, 1974 had a mean posttest score of 121.7 as compared with 119.5 for two year children, 107.9 for one year children, and 95.9 for control group children.

(3) Since the standard error of measurement of the PPVT ranges from 6.5 to 7.9 (depending on age) gains as large as those found for the ECE groups (23.0, 16.7, and 12.5) are not attributable to test error.

III. SOCIAL BEHAVIOR RATING SCALES

In an effort to measure changes in children's social behavior during the course of the ECE program, three similar instruments were developed for administration to parents, home visitors, and van teachers. The Parent Social Behavior Rating Scale, The Home Visitor Social Behavior Rating Scale, and The Van Teacher Social Behavior Rating Scale were administered in September, 1973 and again in May, 1973. Only those children

TABLE 18

PEABODY TEST SUMMARY SHOWING TEST DATES MEAN SCORES AND DIFFERENCES BETWEEN MEANS FOR ECE AND CONTROL GROUP CHILDREN

GROUP	September, 1971 Mean	d*	September, 1972 Mean	d*	May, 1973 Mean	d*	September, 1973 Mean	d*	May, 1974 Mean	d*	Total d**
Three Years in ECE N=15	98.7	-	105.7	7.0	111.9	6.2	-	-	121.7	9.8	23.0
Two Years in ECE N=93	-	-	102.8	-	111.6	8.8	-	-	119.5	7.9	16.7
One Year in ECE N=203	-	-	-	-	-	-	95.4	-	107.9	12.5	12.5
Control N=47	-	-	-	-	-	-	90.3	-	95.9	5.6	5.6

* d = difference between this test and previous test.
** d = difference between first test and last test.

00054

who were first enrolled in the program in September, 1973 were evaluated. For each of the three instruments, ratings were excluded from the analysis if either the pretest or posttest data were missing.

Parent Social Behavior Rating Scale

Both pretest and posttest ratings were received from 168 parents of children who entered the ECE program in September, 1973. Pretest mean scores, posttest mean scores, and difference scores are reported in Table 19. Differences between pretest means and posttest means which were statistically significant at the .01 level have been noted with an asterisk (*). The Student statistic for correlated samples was used to analyze the differences. As indicated in Table 19, the differences between pretest and posttest mean scores ranged from -.1 to +.5. For 13 of the 21 items, the pretest-posttest differences were statistically significant. The greatest differences were obtained for the items "talks about his feelings" (+.5); "talks with adults he doesn't know" (+.5); "likes to play with other children" (+.4); "is comfortable in new situations" (+.4); and "has confidence in himself" (+.4). The least differences were obtained for negative items such as "likes to be alone" (0); "cries" (0); "is shy" (-.1); "acts young for his age" (-.1); and "gets angry" (-.1).

Home Visitor Social Behavior Rating Scale

Both pretest and posttest ratings were obtained from home visitors for 187 children who entered the ECE program in September, 1973. In Table 20, pretest mean scores, posttest mean scores, and difference scores have been reported for each item. Differences which were statistically significant at the .01 level (Student's t) have been designated with an asterisk (*). With two exceptions, all differences were significant.

00055

TABLE 19

MEAN SCORES BY ITEM ON PARENT SOCIAL BEHAVIOR RATING SCALE; PRETEST AND POSTTEST

Item	Mean		d
	Pretest N = 168	Posttest N = 168	
Likes people	4.3	4.5	+ .2*
Likes to play with children	4.4	4.8	+ .4*
Tries to make friends with children he meets	3.8	4.1	+ .3*
Likes to have people come to visit	4.5	4.8	+ .3*
Talks with children he doesn't know	3.4	3.7	+ .3*
Talks with adults he doesn't know	3.0	3.5	+ .5*
Likes to be alone	1.9	1.9	0
Likes to be with people	4.3	4.5	+ .2*
Is shy	2.6	2.5	- .1
Is comfortable in new situations	2.9	3.3	+ .4*
Cries	2.3	2.3	0
Acts young for his age	2.0	1.9	- .1
Is interested in many things	4.4	4.6	+ .2
Has confidence in himself	3.7	4.1	+ .4*
Gets angry	3.2	3.1	- .1
Seems happy	4.4	4.5	+ .1
Is fearful	2.5	2.6	+ .1
Has his own opinions	3.8	4.1	+ .3*
Talks about his feelings	3.0	3.5	+ .5*

00056

TABLE 19
CONTINUED

Item	Mean Pretest N = 168	Mean Posttest N = 168	d
Is proud of himself	4.1	4.3	+ .2*
Feels good about himself	4.1	4.4	+ .3*
Total Positive Questions	58.1	62.7	+4.6*
Total Negative Questions	14.5	14.3	- .2

* = Significant at .01 level.

The magnitude of the differences as reported in Table 20 ranged from -.2 to -1.4. On Part I, the greatest differences were obtained for the items "child response to questions" (+.7); "child talks to you" (+.6); and "child looks you in the eye" (+.6). On Part II, home visitors reported the greatest changes on the items "comfortable - uncomfortable" (-1.4); "confident - insecure" (-1.2); "active - inactive" (-1.2); "independent - dependent" (-1.2); "attentive - destractable" (-1.2); "talkative - silent" (-1.2); and "interested - disinterested" (-1.2).

Van Teacher Social Behavior Rating Scale

Van teachers completed both pretest and posttest rating scales for 78 children who were first enrolled in the ECE program in September, 1973 and who attended the vans regularly. The sample for this instrument does not include children who entered the program late or those who left the program before May, 1974 nor does it include children who participated in the home visit portion of the program but who did not attend the vans or only attended a few times.

In Table 20, the mean scores and the differences between the pretest-posttest means have been reported and those differences which were significant at the .01 level (Student's t) have been designated. As indicated in this table, the greatest pretest - posttest changes for Part I were found for the items "is reluctant to leave mother" (-.9); "clings to a particular child" (-.7); "cries" (-.5); and clings to the teacher or aide" (-.5). On Part II, the largest pretest - posttest differences were obtained for the items "alone - with others" (+.8); "quiet - noisy" (+.7); "shy - outgoint" (+.6); and "attentive - distractable" (+.6). The items listed above were the only items for which the differences were significant.

TABLE 20

HOME VISITOR SOCIAL BEHAVIOR RATING SCALE;
MEAN PRETEST RESPONSES AND MEAN
POSTTEST RESPONSES

Questions. Part I	Mean Pretest N = 187	Mean Posttest N = 187	d
1. Child clings to mother	2.0	1.8	- .2
2. Child is pleased to see you	4.3	4.7	+ .4*
3. Child talks to you	3.8	4.4	+ .6*
4. Child looks you in the eye	3.6	4.2	+ .6*
5. Child is interested in activities	4.2	4.6	+ .4*
6. Child stays in room with you	4.4	4.7	+ .3*
7. Child attends to learning activities	4.1	4.5	+ .4*
8. Child is eager to try new things	4.1	4.5	+ .4*
9. Child responds to your questions	3.7	4.4	+ .7*
10. Child is glad when you leave	1.5	1.3	- .2*
Total For Positive Questions	32.2	35.8	+3.6*
Total For Negative Questions	3.5	3.1	- .4*

* = Significant at .01 level.

TABLE 20
CONTINUED

Questions. Part II	Mean Pretest N = 187	Mean Posttest N = 187	d
1. Shy-Outgoing	5.2	6.0	+ .8*
2. Quiet-Noisy	4.4	4.8	+ .4*
3. Aggressive-Passive	5.3	4.6	- .7*
4. Happy-Sad	3.1	2.3	- .8*
5. Fearful-Bold	5.4	5.8	+ .4*
6. Friendly-Unfriendly	3.2	2.1	-1.1*
7. Confident-Insecure	4.2	3.0	-1.2*
8. Active-Inactive	3.6	2.4	-1.2*
9. Independent-Dependent	4.8	3.6	-1.2*
10. Comfortable-Uncomfortable	3.6	2.2	-1.4*
11. Attentive-Distractable	3.9	2.7	-1.2*
12. Talkative-Silent	4.2	3.0	-1.2*
13. Interested-Disinterested	3.2	2.0	-1.2*
14. Matur-Immature	4.5	3.6	- .9*
15. Fun-loving-Serious	4.4	3.3	-1.1*
16. Nervous-Calm	6.1	6.4	+ .3

* Significant at .01 level.

TABLE 21

VAN TEACHER SOCIAL BEHAVIOR RATING SCALE;
MEAN PRETEST RESPONSES AND MEAN
POSTTEST RESPONSES

Questions. Part I	Mean Pretest N = 78	Mean Posttest N = 78	d
1. Is reluctant to leave mother	2.1	1.2	- .9*
2. Cries	1.6	1.1	- .5*
3. Talks with other children	2.9	3.0	+ .1
4. Talks with teacher	2.9	3.0	+ .1
5. Inititates conversation with children	2.8	2.9	+ .1
6. Initiates conversation with teacher	2.8	2.8	0
7. Clings to a particular child	2.3	1.6	- .7*
8. Clings to the teacher or aide	1.9	1.4	- .5*
9. Looks other children in the eye	3.0	3.1	+ .1
10. Looks teacher in the eye	3.0	3.1	+ .1
11. Participates actively in group activities	3.1	2.9	- .1
12. Follows teacher's instructions	3.0	2.9	- .1
13. Works at tasks independently	3.2	3.2	0
14. Pays attention during group activities	3.1	2.9	- .2*
15. Concentrates on tasks when working alone	3.2	3.1	- .1
16. Other children pay attention to him	2.6	2.5	- .1
TOTAL For Positive Questions	35.6	35.4	- .2
TOTAL For Negative Questions	7.9	5.3	-2.6

* = Significant at .01 level.

TABLE 21
CONTINUED

Questions. Part II	Mean Pretest N = 78	Mean Posttest N = 78	d
1. Shy-Outgoing	4.2	4.8	+ .6*
2. Quiet-Noisy	4.1	4.8	+ .7*
3. Aggressive-Passive	5.3	5.0	- .3
4. Happy-Sad	4.2	4.3	+ .1
5. Fearful-Bold	4.8	5.3	+ .5
6. Friendly-Unfriendly	3.7	4.1	+ .4
7. Confident-Insecure	4.9	4.7	- .2
8. Active-Inactive	4.2	4.0	- .2
9. Independent-Dependent	4.8	4.3	- .5
10. Comfortable-Uncomfortable	4.7	4.4	- .3
11. Leader-Follower	5.2	5.2	0
12. Attentive-Distractable	4.5	5.1	+ .6*
13. Talkative-Silent	5.0	4.8	- .2
14. Interested-Disinterested	4.0	4.5	+ .5
15. Mature-Immature	5.3	5.5	+ .2
16. Funloving-Serious	5.1	4.9	- .2
17. Alone-With Others	4.5	5.3	+ .8*

* = Significant at .01 level.

Summary

The data from the three social behavior rating scales may be summarized as follows:

(1) Parents reported statistically significant pretest - posttest differences for 13 of the 21 items. The greatest differences were found in the areas of self-expression, social interactions with others, comfort in new experiences, and self-confidence.

(2) Home visitors reported statistically significant pretest - posttest differences on 24 of 26 items. The greatest differences were found in the areas of communication, self-confidence, activity, independance, attentiveness, and interest. Children who were between the ages of 3 and 5 showed greater gains than children who were 5 - 6 years old.

(3) Van teachers reported significant pretest - posttest differences on 9 of 33 items. The greatest changes were in the areas of security on the van, social interactions, and outgoingness. Greater changes were reported for 4 - 5 year old children than for 3 - 4 year old children.

SUMMARY AND CONCLUSIONS

The Clinch-Powell Educational Cooperative Early Childhood Education project was designed to provide preschool experience for three, four and five year old children in rural Appalachia who would otherwise not have been able to attend a preschool program. The ECE program is a three dimensional approach which consists of weekly home visits by trained paraprofessionals, weekly classroom sessions on mobile classrooms, and utilization of the Captain Kangeroo TV program and related Parent Guide activities.

During the 1973-74 school year, the project served 335 target children and their parents (direct service) and 410 siblings of target children (indirect service). The target families generally resided on farm or in small communities, they were generally of low to moderate income levals, and the parents were generally undereducated.

Home Visitor ratings of family participation and program related gains indicated that child gains were most closely related to the mother's participation in the program. A Parent Evaluation Questionnaire reflected an extraordinarily high degree of parent satisfaction with the program. The parents reported noticable changes in their own behaviors and in those of their children. Parents expressed most satisfaction with the home visitor dimension of the project and least satisfaction with the TV program.

Administration of the Metropolitan Readiness Test to first grade students in the four county area reflected no significant difference between the preparedness of students who had been in the ECE program and those who had been in kindergarten programs. ECE children scored signi-ficnatly higher than children who had attended Homestart and those who had attended no preschool program. Administration of the Peabody Picture Vocabulary Test over a three year period showed higher test gain scores for ECE children than for control children and higher gain scores for children who had been in the program three years than for those who had been in the program two years or one year.

Social Behavior Rating Scales on which home visitors, teachers, and parents rated children on several social abilities indicated statistically significant pretest-posttest differences in behavior on several of the test variables.

The evaluation of the ECE project indicated that the program has had a measurable effect on parents and children who have participated in the program. Of continuing interest are the long range program effects, especially as related to the home intervention component.

Additional information about the project and samples of program materials may be obtained from the project management:

Clinch-Powell Educational Cooperative
Early Childhood Education Program
Lincoln Memorial University
Harrogate, TN 37752